

Remarks

1. Summary of the Office Action

In the office action mailed November 27, 2007, the Examiner rejected claim 1 under 35 U.S.C. § 112 as allegedly lacking sufficient antecedent basis. Furthermore, also under 35 U.S.C. § 112, the Examiner requested that Applicant provide support from the specification for the amendments to the claims. The Examiner also rejected claims 1, 4-5, 8-17, 24-25, and 27 under U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent Application Publication No. 2002/0065074 (Cohn) in view of U.S. Patent No. 6,894,994 (Grob). Further, the Examiner rejected claims 2-3 and 22-23 under U.S.C. § 103(a) as being allegedly unpatentable over Cohn and Grob in view of U.S. Patent No. 7,071,942 (Zaima). Yet further, the Examiner rejected claims 6-7 and 18-21 under U.S.C. § 103(a) as being allegedly unpatentable over Cohn and Grob in view of Applicant's background of the invention.

2. Status of the Claims

In this response, Applicant has amended various claims to correct minor typographical errors. These amendments place the claims in better form for appeal. No new matter has been added. Now pending are claims 1-25 and 27, of which claims 1, 17, and 27 are independent and the remainder are dependent.

3. Response to 112 Rejections

Applicant has amended claim 1 to replace the limitation, "the second entity" with "the network entity." This amendment corrects a typographical error where the intended language was clear.

In the previous office action response, Applicant amended claims 1, 8-14, 17, 19-21, 24-25, and 27. Referring to the application as filed, example support for the amendments to

claims 1 and 17 can be found in Figures 1 and 3A, as well as page 13, lines 5-22, and page 15, line 16 through page 18, line 14. Example support for the amendments to claim 8 can be found on page 12, lines 11-19. Example support for the amendments to claims 9-10 and 20-21 can be found on page 15, line 16 through page 16, line 23. Example, support for the amendments to claims 11-14, 19, 24-25 and 27 can be found on page 17, line 1 through page 18, line 14.

4. Response to 103(a) Rejections

As noted above, the Examiner relied primarily on the Cohn and Grob references in rejecting the claimed matter as obvious. However, Applicant submits that the Examiner erred in rejecting the claims, because these references do not disclose or suggest what Applicant's claims recite, and because the claimed invention does not follow logically from the teachings of Cohn and Grob.

a. Claims 1 and 17

Applicant's claims 1 and 17 are directed to methods for streaming multimedia to mobile devices. These methods include, for example, receiving from a mobile device a request for a multimedia stream, streaming a portion of the multimedia to the mobile device, detecting when the mobile device has lost wireless coverage, retaining an indication of at what point in the transmission of the multimedia stream the mobile device lost wireless coverage, and resuming the multimedia stream to the mobile device from approximately that point.

The Examiner asserted that the Cohn reference teaches these methods of streaming multimedia content. Applicant respectfully disagrees. Cohn is at best related to *downloading a file* to a mobile device, rather than streaming media to a mobile device. While the Cohn reference makes use of the word "stream" in various contexts, it actually teaches away from applying its process in connection with multimedia streaming as recited by Applicant's claims.

For example, claim 1 of Cohn recites, *inter alia*, “...a content storage device that stores and transmits a data stream...” and, “...a transmission device that transmits the data stream from the data network to a wireless device...” Here, the “data stream” refers to media, stored in a server, that is transmitted to a wireless device.

Cohn teaches the storage of this data stream in the form of a file in paragraphs 0101 – 0103. Downloading media files such that devices can play these files back when not connected to a service provider is contrary to the well understood meaning of streaming media. This well understood meaning involves transmitting a media stream from a server to a client with the client playing out the media as it is streamed. At several points, Cohn teaches away from applying its process in connection with media streaming as recited by Applicant’s claims, and instead teaches downloading a file to a mobile device, for subsequent offline playout of the file. At paragraph 0007, Cohn states:

Current generation wireless devices have limited media playback and storage capabilities, and primarily depend on streaming content for presentation. This implementation is effective and sufficient for low quality media playback on demand for devices having a small memory footprint. Next generation wireless devices will be capable of connecting to broadband wireless data streams, and the need to cache and store content delivered on the device becomes much more important.

Here, Cohn is teaching that wireless devices with large amounts of memory will be able to store content for later playback, a feature that is not available on low-memory wireless devices. Similarly, at paragraph 0026, Cohn states, “A customer could elect to have content delivered to a mobile Internet capable device and review it at their leisure or have it streamed in real time. *The present invention is directed to devices that store content locally and allow playback when not connected to a service provider.*” (Emphasis added.) Likewise, Cohn again fails to teach applying the invention of Applicant’s claims with respect to streaming media to a

wireless device at paragraph 0055, using substantially the same wording as the above quoted section of paragraph 0026.

Thus, Cohn relates to downloading a file to a mobile device, for subsequent offline playout of the file by the wireless device. In contrast, Applicant's claims recite *streaming* media to a wireless device.

In rejecting claims 1 and 17, the Examiner correctly admitted that Cohn is deficient for failing to teach a BSC or a PDSN. However, Cohn is in fact far more deficient than that, as Cohn not only fails to teach a BSC or a PDSN, but also fails to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device. To address the admitted deficiency of Cohn, the Examiner cited Grob. However, Grob fails to make up for both the admitted deficiency of Cohn, and the greater deficiency of Cohn failing to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device.

Claim 1 recites the limitations, "...streaming a portion of the requested multimedia content from the server to the mobile device via the network entity and the wireless connection; the network entity detecting a termination of the wireless connection during the streaming, and the network entity responsively notifying the server..." where the, "...network entity is selected from the group consisting of a base station controller (BSC) and a packet data serving node (PDSN)..." Claim 17 recites substantially similar limitations. Grob fails to disclose or suggest these limitations of claims 1 and 17. Grob teaches a wireless data network that contains a BSC and/or a PDSN, but Grob's BSC and PDSN do not contain the functions of, "detecting a termination of the wireless connection during the streaming, and...responsively notifying the server..."

The Examiner has alleged that Grob, in Fig. 6 – Fig. 8, col. 10, line 41 to col. 11, line 50, and col. 21, line 10 to col. 22, line 28, teaches the above limitations. In Grob, Fig. 6 – Fig. 8 present architectural diagrams of portions of wireless networks, some of which contain a BSC and/or a PDSN. Grob, at Col. 10, line 41 to col. 11, line 50, describes the components of Fig 6. – Fig. 8. Grob, at Col. 21, line 10 to col. 22, line 28, describes the operation of Mobile IP in a PDSN, as well as operations related to CDMA dormancy. None of these sections of Grob teaches detecting a termination of the wireless connection during streaming or responsively notifying a server of such a termination.

The Examiner relied exclusively on Grob to teach a BSC or a PDSN detecting a termination of the wireless connection during streaming and responsively notifying a server. Because Grob does not teach a BSC or PDSN performing these functions, and because of Cohn's deficiencies, the claimed invention does not follow logically from the teachings of Cohn and Grob. Thus, the Examiner has not established a *prima facie* case of obviousness of claims 1 and 17. Accordingly, Applicant submits that claims 1 and 17 are allowable. Furthermore, without conceding the Examiner's other assertions, claims 2-16 and 18-25 are allowable for at least the reason that they depend from an allowable claim.

b. Claim 27

Claim 27 recites, *inter alia*, a multimedia gateway in a data network, including functionality for receiving a streaming protocol command from a mobile device, the command operating as a request that multimedia content be streamed to the mobile device from a server coupled with the network, streaming at least a portion of the requested multimedia content received from the server to the mobile device via a PDSN, receiving a notification from the

PDSN that a termination of the wireless connection occurred during the streaming, and communicating the notification to the server.

The Examiner again cited the Cohn reference as teaching the invention of Applicant's claims with respect to streaming media to a wireless device. For the same reasons discussed above, Applicant submits that Cohn relates to downloading a file to a mobile device for subsequent offline playout of the file by the wireless device, and fails to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device. Accordingly, Applicant further submits that for at least this reason, claim 27 is patentable over Cohn.

The Examiner correctly asserted that Cohn does not teach a PDSN. However, the Examiner attempted to overcome Cohn's deficiencies by referring to Grob. The Examiner alleged that Grob, in Fig. 5 and Fig. 6, discloses a PDSN. In fact, these figures do *disclose* a PDSN, in that they are architectural diagrams of portions of wireless networks, some of which contain a PDSN. However, they do not teach at least the portion of Applicant's claim 27 that recites, "...receiving a notification from the PDSN that a termination of the wireless connection occurred during the streaming, and communicating the notification to the server..."

The Examiner contended that it would be obvious to combine a PDSN with Cohn's system to provide packet data access to the access terminal. Applicant submits that even if Cohn did teach the invention of Applicant's claims with respect to streaming media, the combination of Cohn and Grob would fail to render claim 27 obvious.

Unlike Applicant's claims, Grob's PDSN does not include a mechanism to notify a multimedia gateway that a termination of a wireless device's wireless connection has occurred. Therefore, combining Grob's PDSN into Cohn's system would not result in the system recited

by claim 27. Thus, the Examiner has not established that Grob teaches the missing elements of Cohn, that the combination of Cohn and Grob would result in what is recited by claim 27, or that this combination would render claim 27 obvious.

For at least these reasons, and without conceding the Examiner's other assertions, the Examiner did not make out a *prima facie* case of obviousness for claim 27, and claim 27 is allowable.

5. Conclusion

In view of the foregoing, and without conceding any assertions by the Examiner not addressed here, Applicant submits that all of the pending claims are allowable. Therefore, Applicant respectfully requests favorable reconsideration and allowance. Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-2141.

Respectfully submitted,

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